

CRIB PATTING DEVICE

Applicant claims priority of Provisional application S.N. 60/483910, filed July 2, 2003.

BACKGROUND OF THE INVENTION

This invention relates, in general, to accessories for cribs, and, in particular, to accessories for cribs which make a patting sound or vibration to sooth an infant.

Description of the Prior Art

In the prior art various types of accessories for cribs have been proposed. For example, U.S. Patent No. 6,142,963 to **Black et al** discloses a crib patting device with two hinged elements that are separated by the action of a rotatable cam.

U.S. Patent No. 4,951,331 to **Pereira** discloses a crib patting device which has an adjustable frame to place a patting device against the bottom of a crib.

U.S. Patent No. 3,529,311 to **Crawford** discloses a crib bouncer which has a bouncer housing connected to the bottom of the crib and a cam to operate the device.

U.S. Patent No. 3,261,032 to **Reardon** discloses a crib rocking device which uses an electromagnet to operate the device.

SUMMARY OF THE INVENTION

The present invention is directed to a crib accessory that can be placed beneath an infant's crib. A movable plate is rhythmically moved up and down to pat the crib and sooth the infant.

It is an object of the present invention to provide a new and improved crib patting device.

It is an object of the present invention to provide a new and improved crib patting device that can easily moved beneath the crib.

It is an object of the present invention to provide a new and improved crib patting device which can be powered by a variety of devices.

These and other objects and advantages of the present invention will be fully apparent from the following description, when taken in connection with the annexed drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic view of the present invention.

FIG. 2 is a partial side view of another embodiment of the present invention.

FIG. 3 is a partial view of another embodiment of the present invention.

FIG. 4 is a partial view of another embodiment of the present invention.

FIG. 5 is a partial view of another embodiment of the present invention.

FIG. 6 is a partial view of one of the elements of the **FIG. 5** device.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in greater detail, **Fig. 1** shows a schematic view of the present invention 1. A casing or support 2 holds an electro magnet 15 attached thereto in any conventional manner. A metal plate 7 is attached to an arm 18 which pivots about pivot point 19. A pad 20, similar to pad 20 in **Fig. 2**, is mounted on the end of arm 18 by threaded post 21. When magnet 15 is energized, it attracts plate 7 downwardly, which raises the opposite end of arm 18 (i.e. the end with pad 20). When pad 20 is raised it will apply a patting motion to the underside of a crib or mattress on the crib, which will sooth an infant on the mattress. When the magnet 15 is de-energized, the weight of the baby will force the end of the arm 18 with the pad 20 downward.

The device shown in **Fig. 2** accomplishes the same result as the **Fig. 1** device in a slightly different manner. A piston 17 is mounted in a housing 16 and moves up and down under the control of an electro magnet or solenoid 15 similar to the operation of the plate 7 and the magnet 15 in **Fig. 1**. Piston 17 is attached to arm 18 in any conventional manner. As the piston 17 moves down from the position shown in **Fig. 2** under the pull of the magnet or solenoid 15, it pulls arm 18, which pivots on bar 19, downward. The left side of arm 18 (as seen in **Fig. 2**) has a pad 20 which will strike the bottom of the crib mattress when the left side of the arm 18 is moved downward. Pad 20 is connected to arm 18 by a screw threaded post 21 which engages in a

threaded aperture in arm 18 so the height of the pad 20 can be adjusted up and down. The weight of the baby will force the left end of the arm 18 down when the power to solenoid or magnet 15 is turned off, as in the Fig. 1 device. The magnet/solenoid 15, used in the Figs. 1 and 2 devices, can be operated by an AC or DC source which has a conventional switch which cycles to turn on and off the magnet/solenoid 15.

The Fig. 3 device uses the same arm 18 and pivot point 19 as used in the Fig. 2 device, however the arm 18 is moved in an up and down manner by a cam 22 which is eccentrically mounted at 23. The cam 22 can be powered by any conventional motor (not shown). As the cam rotates it will push the right side of arm 18 down, which will raise the left side of arm 18 (as seen in Fig. 3), with the pad 20 (not shown in Fig. 3 for clarity) which will pat the crib in the same manner as the Fig. 2 device.

The Fig. 4 device is another type of moving means for moving the arm 18 about the pivot point 19. In this device a motor 28 rotates a rubber wheel 29. The wheel 29 rotates wheel 26 about point 27. An arm 24 is connected at one end to wheel 26 at point 30, and at the other end to plate 18 at point 25. As wheel 26 rotates, arm 24 will move up and down, which will move arm 18 up and down, which will raise the left side of arm 18, with the pad 20 (not shown in Fig. 4 for clarity), which will pat the crib in the same manner as the Fig. 1, Fig. 2 and Fig. 3 devices.

The device shown in **Fig. 5** is an adjustment device for the movement means **16, 17** as shown in **Fig. 2**. A housing **36** holds a spring **35** above the piston **17**. The housing **36** would incase the piston **17** and the spring **35**, as shown in **Fig. 5**. The housing has an adjustment device **34** secured to the top of the housing. The device **34** has a plurality of spaced projections **32** which are spaced in a vertical direction along the outer surface of the device **34** to form rows between the spaced projections **32**. The projections **32** are also spaced in a horizontal direction to form at least one slot **33** between the projections. The housing has a right angle projection (see **Fig. 6**) at the top of the housing. The device **34** can be moved up and down within the housing **36** by aligning the projection **31** with the slot **33**, moving the device, and when the device is positioned as desired by the user, rotating the device **34** until the projection **31** is placed between two of the projections **32**, which will lock the device **34** with respect to the housing **36**. Moving the device **34** down into the housing will compress spring **35**, which will make it easier for the piston to move the plate **18** down.

Although the Crib Patting Device and the method of using the same according to the present invention has been described in the foregoing specification with considerable details, it is to be understood that modifications may be made to the invention which do not exceed the

scope of the appended claims and modified forms of the present invention done by others skilled in the art to which the invention pertains will be considered infringements of this invention when those modified forms fall within the claimed scope of this invention.

What I claim as my invention is: